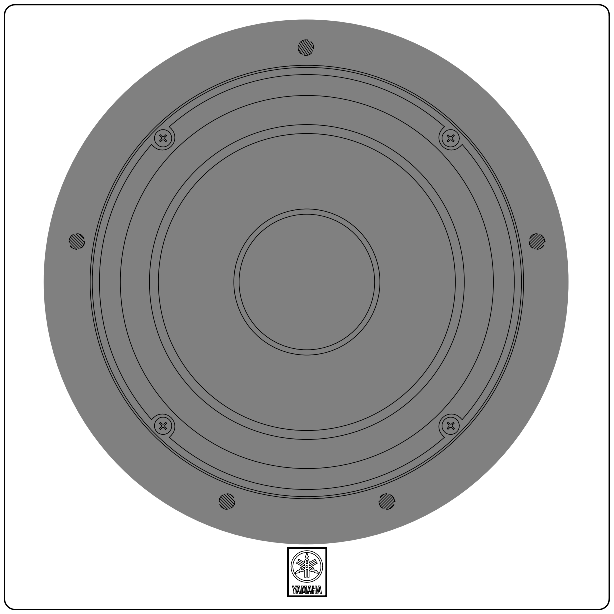
SUBWOOFER SYSTEM

YST-SW012

SERVICE MANUAL

YST-SW012



IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel.
It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components, and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.

■ CONTENTS

このサービスマニュアルは、エコマーク認定の再生紙を使用しています。
This Service Manual uses recycled paper.

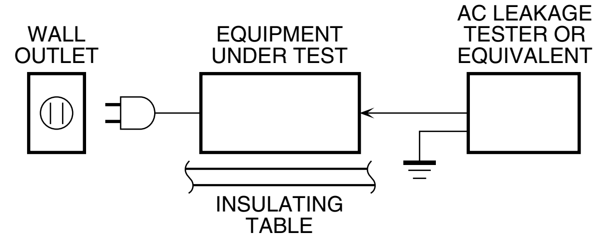
100994

YAMAHA
YAMAHA CORPORATION
P.O.Box 1, Hamamatsu, Japan

'05.12

■ TO SERVICE PERSONNEL

1. Critical Components Information
   Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Models Only)
   When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.



- Meter impedance should be equivalent to 1500 ohms shunted by 0.15μF.
- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.



"CAUTION"
"F1: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 1.6A, 125V FUSE."

CAUTION
F1: REPLACE WITH SAME TYPE 1.6A, 125V FUSE.

ATTENTION
F1: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE DE 1.6A, 125V.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and /or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

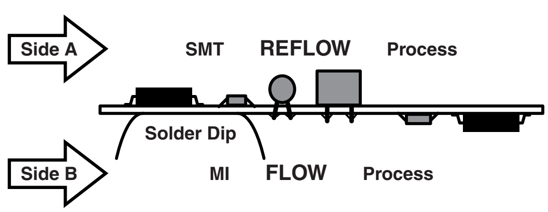
Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

About Lead Free Solder

The P.C.B.s installed in this unit are soldered using the following solder.

	Side A	Side B
MAIN P.C.B.	–	Lead Free Solder



Among some types of lead free solder currently available, it is recommended to use one of the following types for the repair work.

- Sn + Ag + Cu (tin + silver + copper)
- Sn + Cu (tin + copper)
- Sn + Zn + Bi (tin + zinc + bismuth)

Caution:

1. As the melting point temperature of the lead free solder is about 30°C to 40°C (50°F to 70°F) higher than that of the lead solder, be sure to use a soldering iron suitable to each solder.
2. If lead solder must be used, be sure to remove lead free solder from each terminal section of the parts to be replaced and from the area around it completely before soldering, or make sure that the lead free solder and lead solder melt together fully.

■ SPECIFICATIONS

Type .... Advanced Yamaha Active Servo Technology II
Output Power .... 50 W (100 Hz, 5 ohms 10% T.H.D)
Input Sensitivity .... 50 mV (50 Hz, 50 W / 5 ohms)
Dynamic Power .... 100 W, 5 ohms
Input Impedance .... 12 k-ohms
Frequency Response .... 28 Hz to 200 Hz
Driver .... 20cm (7-7/8") Cone Woofer
Magnetic Shielding Type

Input Section
INPUT .... RCA Pin jack

Operation Section
Power Switch, Volume Control, LED indicator

Power Supply
U, C models .... AC 120 V, 60 Hz
R, T, K, L models .... AC 110-120 / 220-240 V, 50 / 60 Hz
A model .... AC 240 V, 50 Hz
B, G models .... AC 230 V, 50 Hz

Power Consumption .... 45 W
Dimensions (W x H x D) .... 290 x 290 x 327.5 mm
(11-7/16" x 11-7/16" x 12-7/8")
Weight .... 8.5 kg (18 lbs. 11 oz.)

Finish
Silver color .... U, C, R, T, K, A, B, G, L models
Black color .... U, C, R, T, A, B, G, L models
Cherry color .... R, T, K, A, B, G, L models

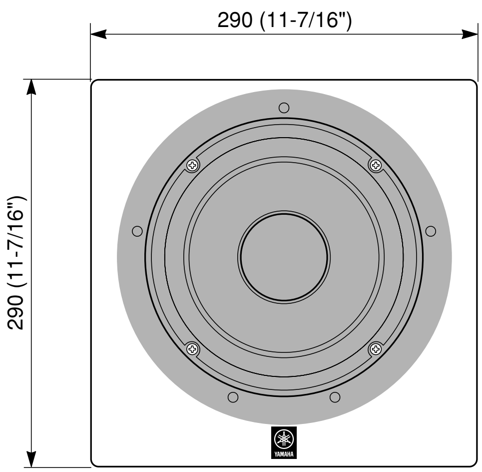
Accessories
Nonskid pad x 4, Subwoofer Cable (5m) x 1

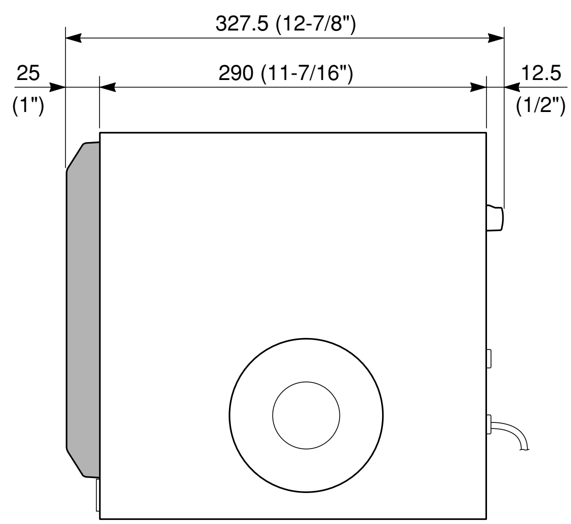
* Specifications are subject to change without notice due to product improvements.

U .... U.S.A. model	**C ...... Canadian model**
R .... General model	**T .... Chinese model**
K .... Korean model	**A ...... Australian model**
B .... British model	**G ...... European model**
L .... Singapore model	

Advanced YST II
This subwoofer system employs Advanced Yamaha Active Servo Technology II which Yamaha has developed for reproducing higher quality super-bass sound.
This super bass sound adds a more realistic, theater-in-the-home effect to your stereo system.

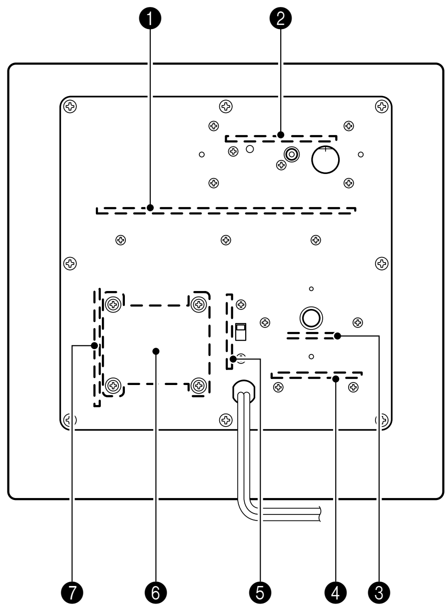
• DIMENSIONS





Unit: mm (inch)

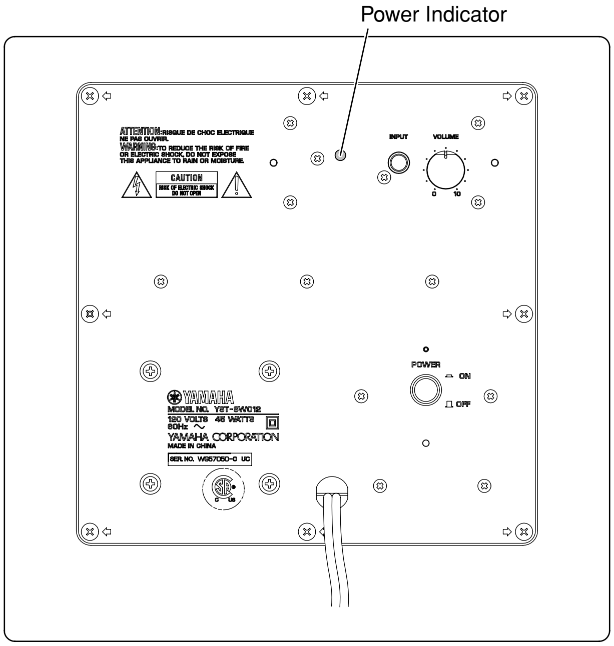
■ INTERNAL VIEW



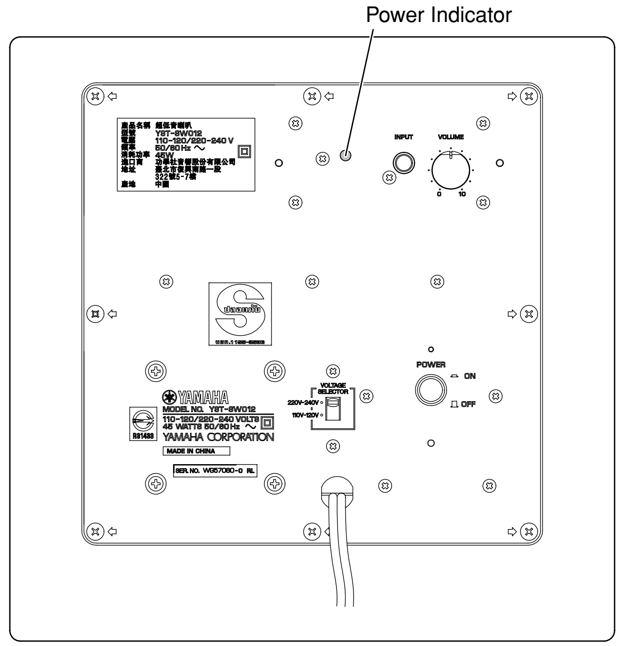
❶ MAIN (1) P.C.B.
❷ MAIN (3) P.C.B.
❸ MAIN (5) P.C.B. (U, C, A, B, G models)
MAIN (4) P.C.B. (R, T, K, L models)
❹ MAIN (2) P.C.B.
❺ MAIN (9) P.C.B. (R, T, K, L models)
❻ Power Transformer
❼ MAIN (7) P.C.B. (U, C, A, B, G models)
MAIN (10) P.C.B. (R, T, K, L models)

■ REAR PANELS

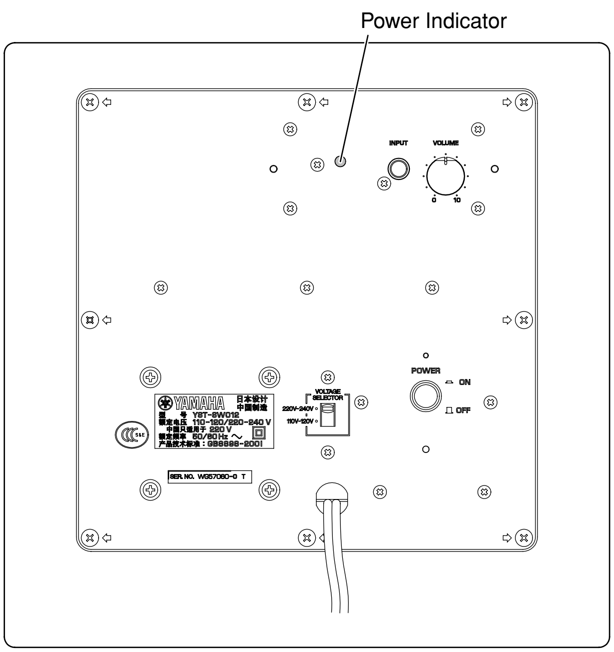
U, C models



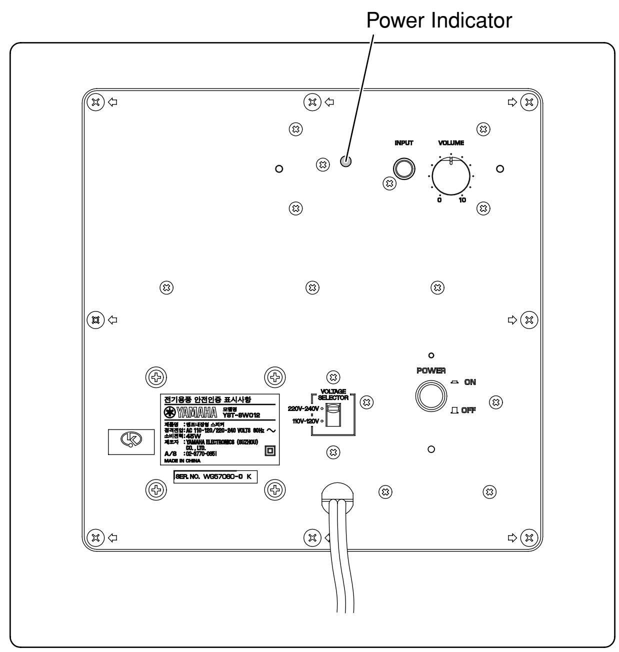
R model



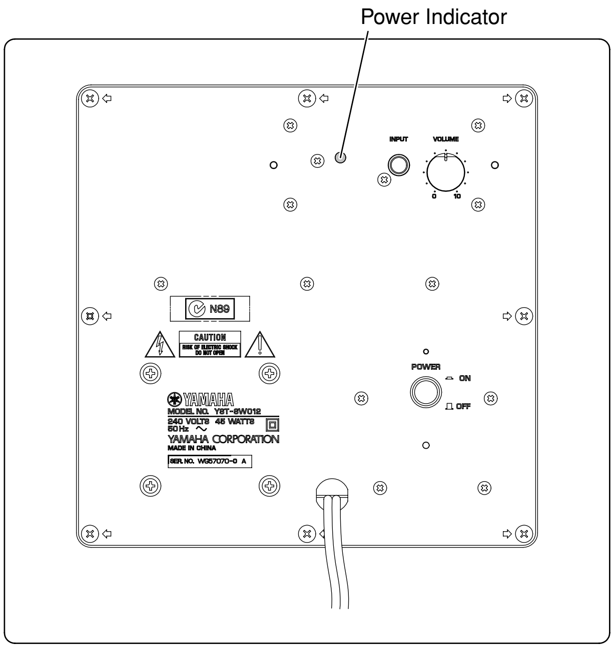
T model



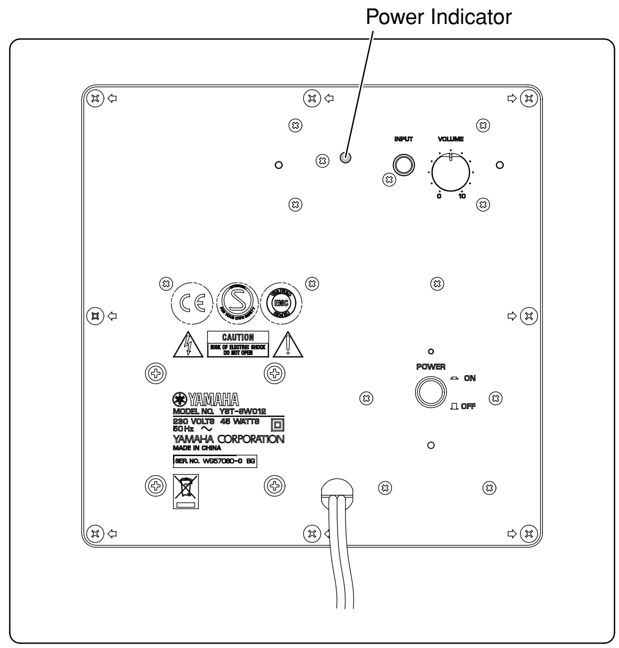
K model



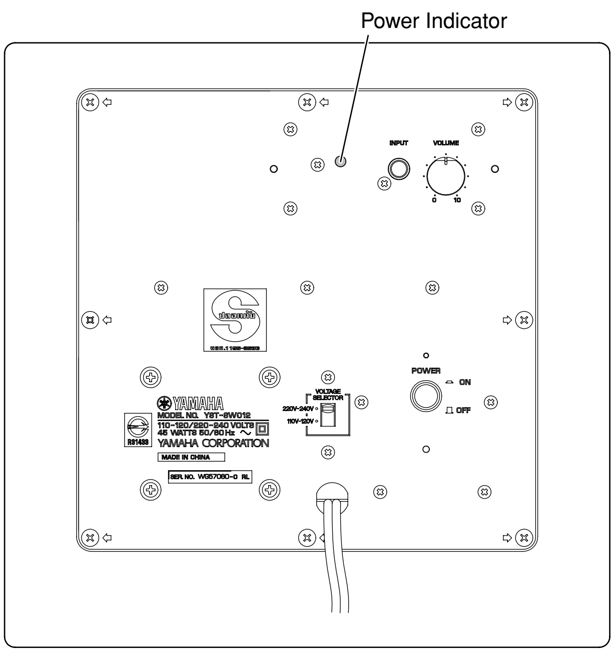
A model



B, G models



L model



■ DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)
Disconnect the power cable from the AC outlet.

1. Removal of Front Grille Ass'y

* The Front Grille Ass'y is fixed to the cabinet with dowels at 5 locations.
  As a flatblade screwdriver is used for removal, use special care not to cause damage to the Cabinet Ass'y.

a. Using the flatblade screwdriver inserted in the gap between the Front Grille Ass'y and the Cabinet Ass'y (bottom side first), push up the Front Grille Ass'y. (Fig.1)
b. Remove the Front Grille Ass'y by lifting a metalblade up. (Fig.1)

* When installing the Front Grille Ass'y, apply quick-drying bond or the like to dowels and then fit them into dowel holes for secure installation. (The Front Grille Ass'y will come off easily if its dowels are fitted into dowel holes without applying quick-drying bond or the like.)

2. Removal of Driver

a. Remove 4 screws (①) and remove the Driver. (Fig.1)
b. Disconnect the connector connected to the terminal of the Driver. (Fig. 1)

3. Removal of Rear Panel Ass'y

a. Remove 8 screws (②) and remove the Rear Panel Ass'y. (Fig.1)

* Screws (②) are identified with arrow marks (⬅).

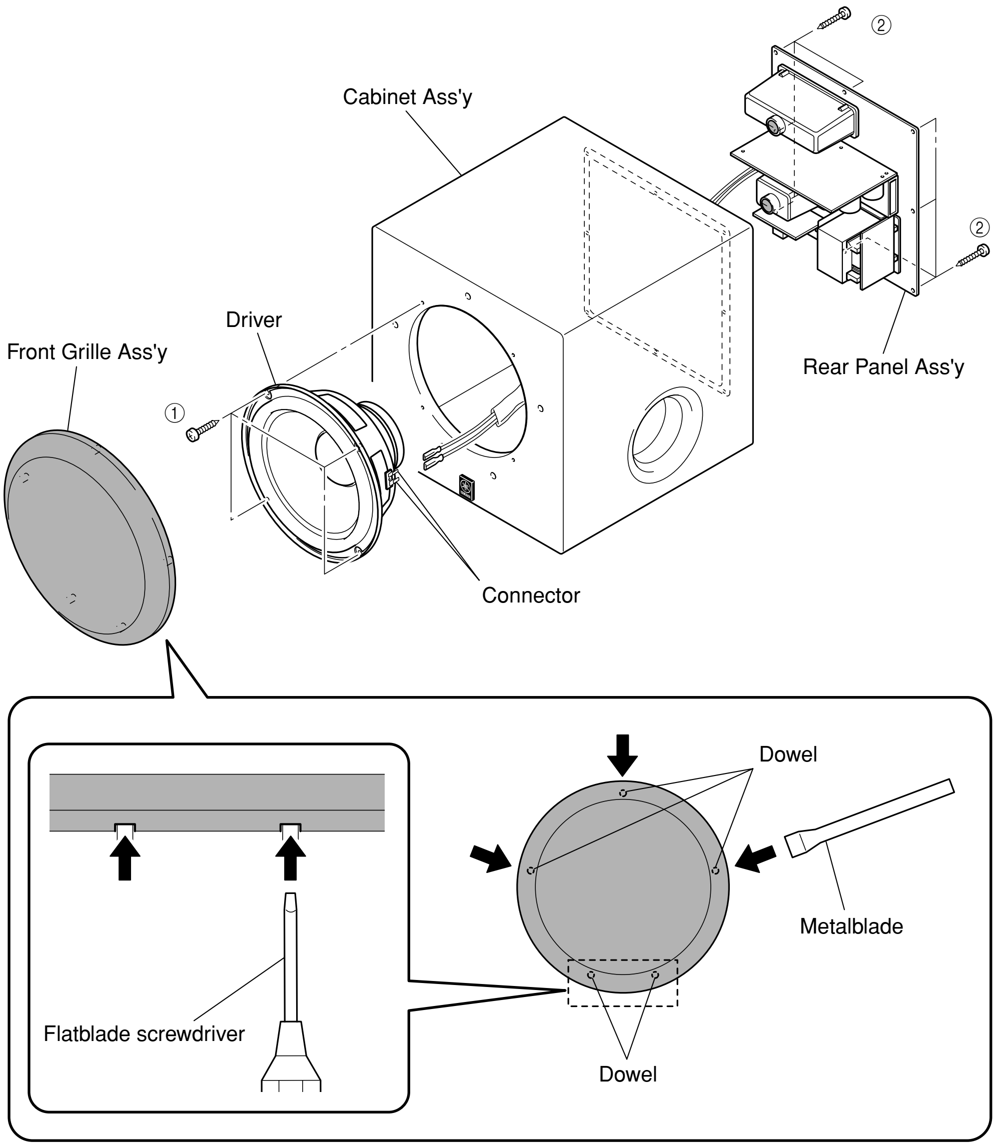


Fig. 1

When Checking the P.C.B..

- Connect all the connectors removed during disassembly back to the original positions.
- Spread the Rubber Sheet and Cloth for insulation purpose and place the Rear Panel Ass'y on the Rubber Sheet and Cloth. (Fig. 2)

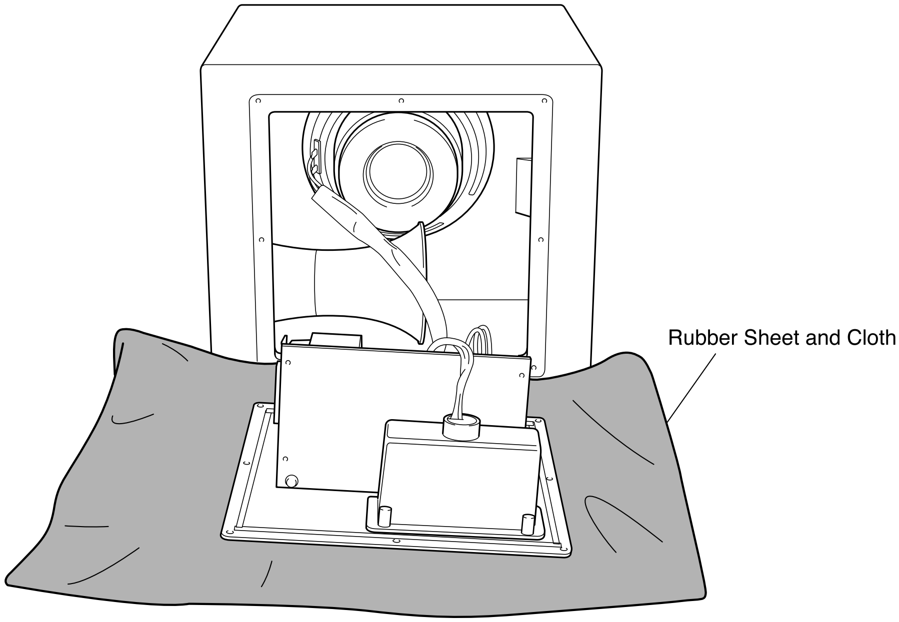
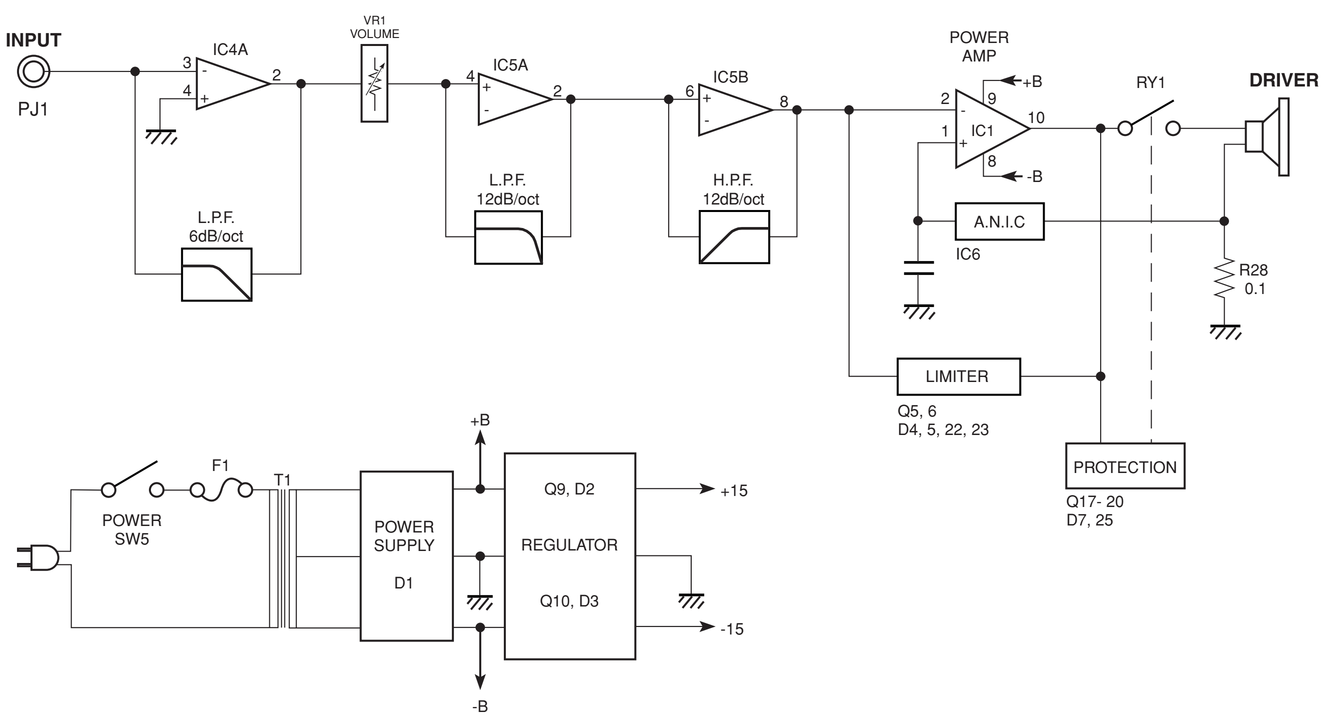
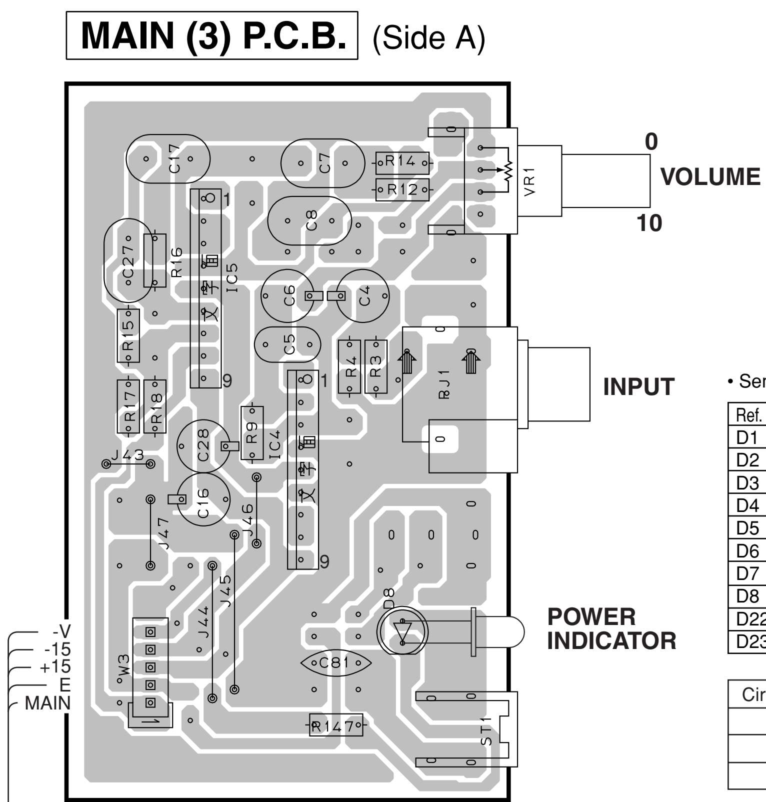


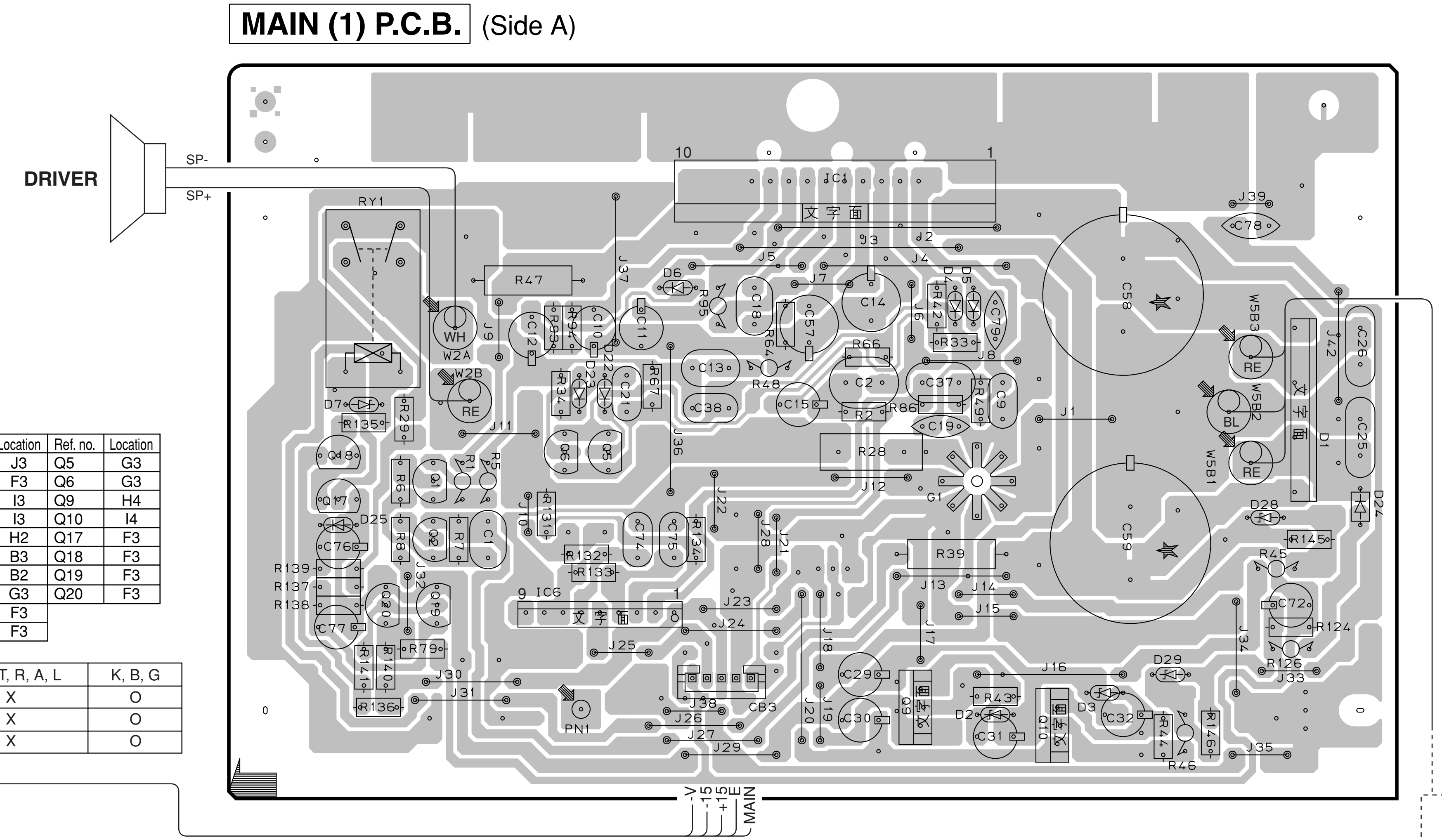
Fig. 2

■ BLOCK DIAGRAM



■ PRINTED CIRCUIT BOARD Lead Free Solder Used

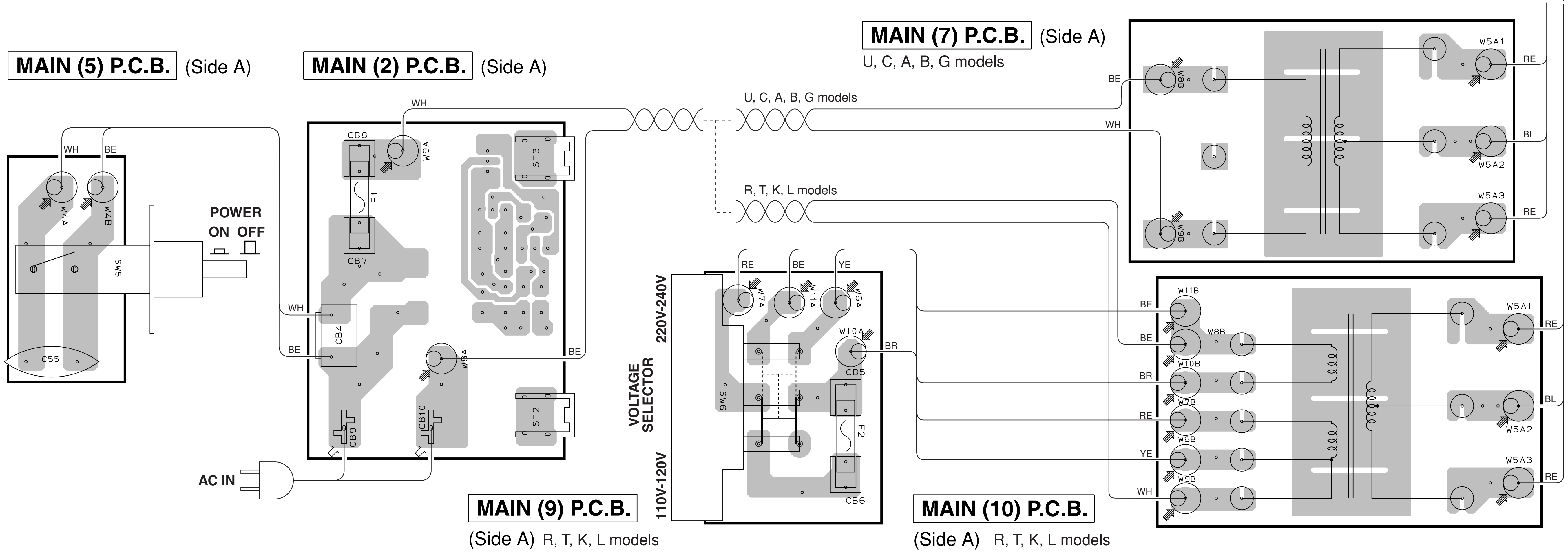




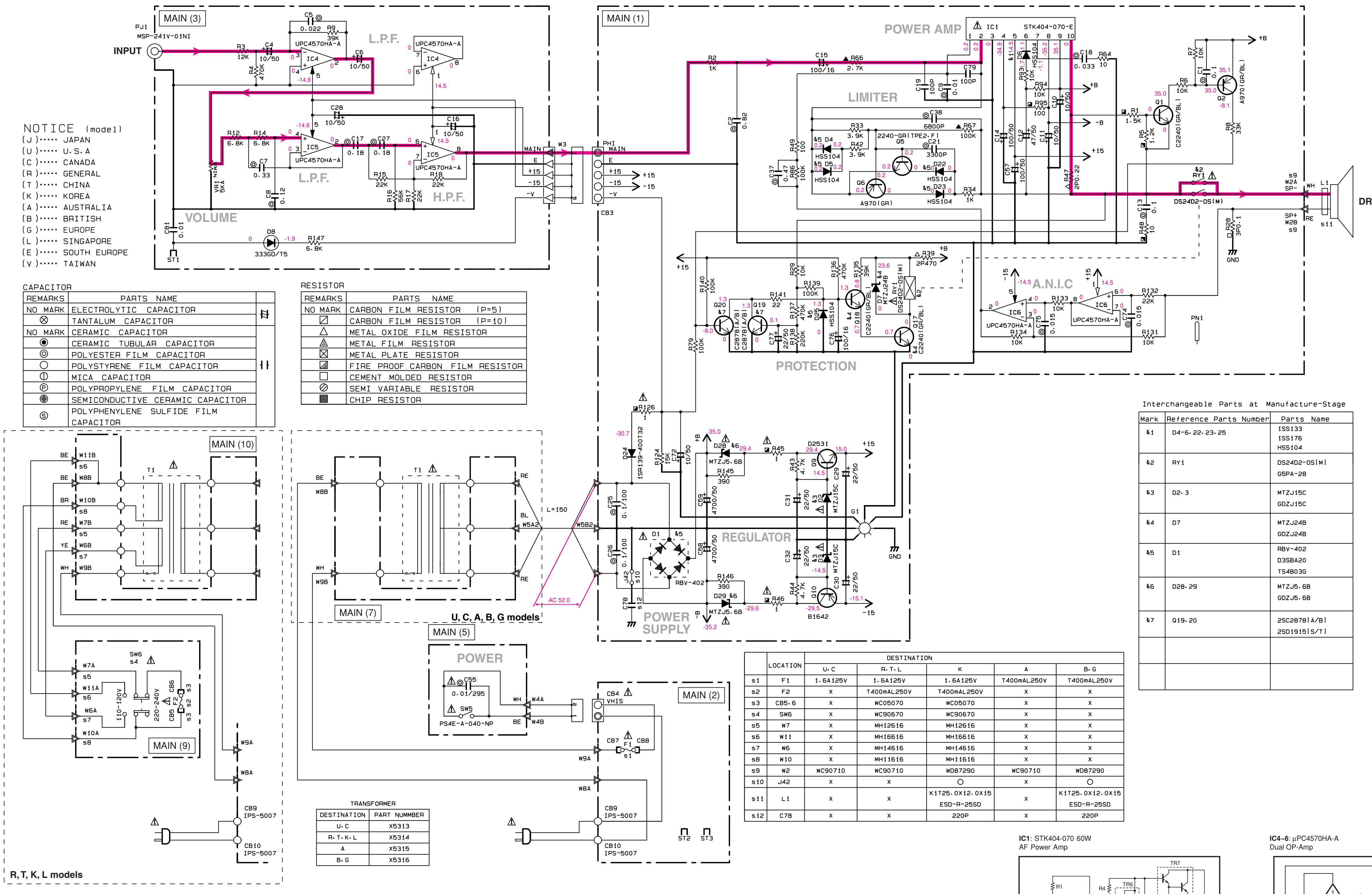
• Semiconductor Location

Ref. no.	Location	Ref. no.	Location	Ref. no.	Location
D1	J2	D24	J3	Q5	G3
D2	H4	D25	F3	Q6	G3
D3	I4	D28	I3	Q9	H4
D4	H2	D29	I3	Q10	I4
D5	H2	IC1	H2	Q17	F3
D6	G2	IC4	B3	Q18	F3
D7	F2	IC5	B2	Q19	F3
D8	C3	IC6	G3	Q20	F3
D22	G2	Q1	F3		
D23	G2	Q2	F3		

Circuit No.	U, C, T, R, A, L	K, B, G
C78	X	O
J42	X	O
L1	X	O



■ SCHEMATIC DIAGRAM



NOTICE (model)
(J)······ JAPAN
(U)······ U.S.A
(C)······ CANADA
(R)······ GENERAL
(T)······ CHINA
(K)······ KOREA
(A)······ AUSTRALIA
(B)······ BRITISH
(G)······ EUROPE
(L)······ SINGAPORE
(E)······ SOUTH EUROPE
(V)······ TAIWAN

CAPACITOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
◉	CERAMIC TUBULAR CAPACITOR
◎	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
⦶	MICA CAPACITOR
Ⓟ	POLYPROPYLENE FILM CAPACITOR
⊜	SEMICONDUCTIVE CERAMIC CAPACITOR
Ⓢ	POLYPHENYLENE SULFIDE FILM CAPACITOR

RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
◪	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
⚠	METAL FILM RESISTOR
⊠	METAL PLATE RESISTOR
◩	FIRE PROOF CARBON FILM RESISTOR
□	CEMENT MOLDED RESISTOR
⊘	SEMI VARIABLE RESISTOR
▤	CHIP RESISTOR

Interchangeable Parts at Manufacture-Stage

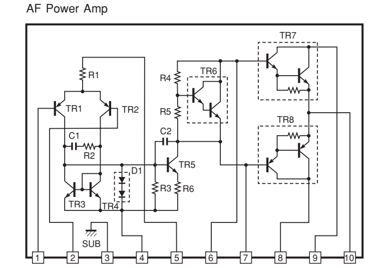
Mark	Reference Parts Number	Parts Name
&1	D4-6.22.23.25	1SS133 1SS176 HSS104
&2	RY1	DS24D2-OS[M] G5PA-28
&3	D2.3	MTZJ15C GDZJ15C
&4	D7	MTZJ24B GDZJ24B
&5	D1	RBV-402 D3SBA20 TS4B03G
&6	D28.29	MTZJ5.6B GDZJ5.6B
&7	Q19.20	2SC2878[A/B] 2SD1915[S/T]

	LOCATION	DESTINATION				
		U.C	R.T.L	K	A	B.G
s1	F1	1.6A125V	1.6A125V	1.6A125V	T400mAL250V	T400mAL250V
s2	F2	X	T400mAL250V	T400mAL250V	X	X
s3	CB5.6	X	WC05070	WC05070	X	X
s4	SW6	X	WC90670	WC90670	X	X
s5	W7	X	MH12616	MH12616	X	X
s6	W11	X	MH16616	MH16616	X	X
s7	W6	X	MH14616	MH14616	X	X
s8	W10	X	MH11616	MH11616	X	X
s9	W2	WC90710	WC90710	WD87290	WC90710	WD87290
s10	J42	X	X	○	X	○
s11	L1	X	X	K1T25.0X12.0X15 ESD-R-25SD	X	K1T25.0X12.0X15 ESD-R-25SD
s12	C78	X	X	220P	X	220P

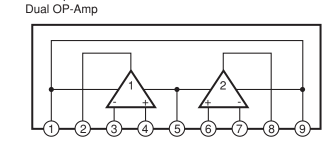
TRANSFORMER

DESTINATION	PART NUMBER
U.C	X5313
R.T.K.L	X5314
A	X5315
B.G	X5316

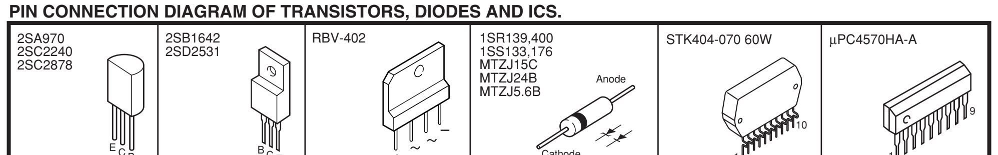
IC1: STK404-070 60W
AF Power Amp



IC4–6: µPC4570HA-A
Dual OP-Amp



PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICS.



★ All voltages are measured with a 10MΩV DC electronic volt meter.
★ Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

PARTS LIST

■ ELECTRICAL PARTS

■ WARNING

- Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS:

C.A.EL.CHP	: CHIP ALUMI.ELECTROLYTIC CAP
C.CE	: CERAMIC CAP
C.CE.ARRAY	: CERAMIC CAP ARRAY
C.CE.CHP	: CHIP CERAMIC CAP
C.CE.ML	: MULTILAYER CERAMIC CAP
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP
C.CE.TUBLR	: CERAMIC TUBULAR CAP
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP
C.EL	: ELECTROLYTIC CAP
C.MICA	: MICA CAP
C.ML.FLM	: MULTILAYER FILM CAP
C.MP	: METALLIZED PAPER CAP
C.MYLAR	: MYLAR FILM CAP
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP
C.PAPER	: PAPER CAPACITOR
C.PLS	: POLYSTYRENE FILM CAP
C.POL	: POLYESTER FILM CAP
C.POLY	: POLYETHYLENE FILM CAP
C.PP	: POLYPROPYLENE FILM CAP
C.TNTL	: TANTALUM CAP
C.TNTL.CHP	: CHIP TANTALUM CAP
C.TRIM	: TRIMMER CAP
CN	: CONNECTOR
CN.BS.PIN	: CONNECTOR,BASE PIN
CN.CANNON	: CONNECTOR,CANNON
CN.DIN	: CONNECTOR,DIN
CN.FLAT	: CONNECTOR,FLAT CABLE
CN.POST	: CONNECTOR,BASE POST
COIL.MX.AM	: COIL,AM MIX
COIL.AT.FM	: COIL,FM ANTENNA
COIL.DT.FM	: COIL,FM DETECT
COIL.MX.FM	: COIL,FM MIX
COIL,OUTPT	: OUTPUT COIL
DIOD.ARRAY	: DIODE ARRAY
DIODE.BRG	: DIODE BRIDGE
DIODE.CHP	: CHIP DIODE
DIODE.VAR	: VARACTOR DIODE
DIOD.Z.CHP	: CHIP ZENER DIODE
DIODE.ZENR	: ZENER DIODE
DSCR.CE	: CERAMIC DISCRIMINATOR
FER.BEAD	: FERRITE BEADS
FER.CORE	: FERRITE CORE
FET.CHP	: CHIP FET
FL.DSPLY	: FLUORESCENT DISPLAY
FLTR.CE	: CERAMIC FILTER
FLTR.COMB	: COMB FILTER MODULE
FLTR.LC.RF	: LC FILTER,EMI
GND.MTL	: GROUND PLATE
GND.TERM	: GROUND TERMINAL
HOLDER.FUS	: FUSE HOLDER
IC.PRTCT	: IC PROTECTOR
JUMPER.CN	: JUMPER CONNECTOR
JUMPER.TST	: JUMPER,TEST POINT
L.DTCT	: LIGHT DETECTING MODULE
L.EMIT	: LIGHT EMITTING MODULE
LED.DSPLY	: LED DISPLAY
LED.INFRD	: LED,INFRARED
MODUL.RF	: MODULATOR,RF
PHOT.CPL	: PHOTO COUPLER
PHOT.INTR	: PHOTO INTERRUPTER
PHOT.RFLCT	: PHOTO REFLECTOR
PIN.TEST	: PIN,TEST POINT
PLST.RIVET	: PLASTIC RIVET
R.ARRAY	: RESISTOR ARRAY
R.CAR.	: CARBON RESISTOR
R.CAR.CHP	: CHIP RESISTOR
R.CAR.FP	: FLAME PROOF CARBON RESISTOR
R.FUS	: FUSABLE RESISTOR
R.MTL.CHP	: CHIP METAL FILM RESISTOR
R.MTL.FLM	: METAL FILM RESISTOR
R.MTL.OXD	: METAL OXIDE FILM RESISTOR
R.MTL.PLAT	: METAL PLATE RESISTOR
RSNR.CE	: CERAMIC RESONATOR
RSNR.CRYS	: CRYSTAL RESONATOR
R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
R.CEMENT	: CEMENT RESISTOR
SCR.BND.HD	: BIND HEAD B-TITE SCREW
SCR.BW.HD	: BW HEAD TAPPING SCREW
SCR.CUP	: CUP TITE SCREW
SCR.TERM	: SCREW TERMINAL
SCR.TR	: SCREW,TRANSISTOR
SUPRT.PCB	: SUPPORT,P.C.B.
SURG.PRTCT	: SURGE PROTECTOR
SW.TACT	: TACT SWITCH
SW.LEAF	: LEAF SWITCH
SW.LEVER	: LEVER SWITCH
SW.MICRO	: MICRO SWITCH
SW.PUSH	: PUSH SWITCH
SW.RT.ENC	: ROTARY ENCODER
SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
SW.RT	: ROTARY SWITCH
SW.SLIDE	: SLIDE SWITCH
TERM.SP	: SPEAKER TERMINAL
TERM.WRAP	: WRAPPING TERMINAL
THRMST.CHP	: CHIP THERMISTOR
TR.CHP	: CHIP TRANSISTOR
TR.DGT	: DIGITAL TRANSISTOR
TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
TRANS	: TRANSFORMER
TRANS.PULS	: PULSE TRANSFORMER
TRANS.PWR	: POWER TRANSFORMER ASS'Y
TUNER.AM	: TUNER PACK,AM
TUNER.FM	: TUNER PACK,FM
TUNER.PK	: FRONT-ENDTUNER PACK
VR	: ROTARY POTENTIOMETER
VR.MTR	: POTENTIOMETER WITH MOTOR
VR.SW	: POTENTIOMETER WITH ROTARY SW
VR.SLIDE	: SLIDE POTENTIOMETER
VR.TRIM	: TRIMMER POTENTIOMETER

P.C.B. MAIN

	Ref. No.	Part No.	Description		Markets
*		WG587200	P.C.B.		UC
*		WG587300	P.C.B.		RTL
*		WG587400	P.C.B.		K
*		WG587500	P.C.B.		A
*		WG587600	P.C.B.		BG
	CB3	VB390100	CN.BS.PIN	5P	
⚠	CB4	VG879900	CN.BS.PIN	2P	
⚠	CB5-6	WC050700	CLIP.FUSE	EYF-52BCY	RTKL
⚠	CB7-8	WC050700	CLIP.FUSE	EYF-52BCY	
	CB9-10	VT658100	TERM.WRAP	352-TX119	
	C1	VE326000	C.MYLAR	0.1uF 50V	
	C2	VE327100	C.MYLAR	0.82uF 50V	
	C4	UR867100	C.EL	10uF 50V	
	C5	UA654220	C.MYLAR	0.022uF 50V J	
	C6	UR867100	C.EL	10uF 50V	
	C7	UA655330	C.MYLAR	0.33uF 50V J	
	C8	UA655120	C.MYLAR	0.12uF 50V J	
	C9	UA654100	C.MYLAR	0.01uF 50V J	
	C10-11	UR867100	C.EL	10uF 50V	
	C12	UR867470	C.EL	47uF 50V	
	C13	VE326000	C.MYLAR	0.1uF 50V	
	C14	UR868100	C.EL	100uF 50V	
	C15	UR838100	C.EL	100uF 16V	
	C16	UR867100	C.EL	10uF 50V	
	C17	UA655180	C.MYLAR	0.18uF 50V J	
	C18	UA654330	C.MYLAR	0.033uF 50V J	
	C19	FG652100	C.CE	100pF 50V	
	C21	UA653330	C.MYLAR	3300pF 50V J	
	C25-26	VT898000	C.MYLAR	0.1uF 100V	
	C27	UA655180	C.MYLAR	0.18uF 50V J	
	C28	UR867100	C.EL	10uF 50V	
	C29	UR867220	C.EL	22uF 50V	
	C30-32	UR867220	C.EL	22uF 50V	
	C37	UA655470	C.MYLAR	0.47uF 50V J	
	C38	UA653680	C.MYLAR	6800pF 50V J	
⚠	C55	WB121400	C.CE.SAFTY	0.01uF 295V	
	C57	UR868100	C.EL	100uF 50V	
	C58-59	V6476700	C.EL	4700uF 50V	
	C72	UR867100	C.EL	10uF 50V	
	C74-75	UA654150	C.MYLAR	0.015uF 50V J	
	C76	UR838100	C.EL	100uF 16V	
	C77	UR867220	C.EL	22uF 50V	
	C78	FG652220	C.CE	220pF 50V	KBG
	C79	FG652100	C.CE	100pF 50V	
	C81	FG644100	C.CE	0.01uF 50V	
⚠	D1	VC971500	DIODE.BRG	RBV-402 4A 200V	
⚠	D2	VG440900	DIODE.ZENR	MTZJ15C 15V	
⚠	D3	VG440900	DIODE.ZENR	MTZJ15C 15V	

＊ New Parts

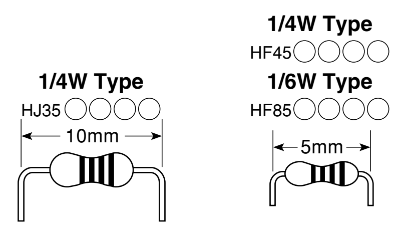
P.C.B. MAIN

	Ref. No.	Part No.	Description		Markets
	D4	VD631600	DIODE	1SS133,176	
	D5	VD631600	DIODE	1SS133,176	
	D6	VD631600	DIODE	1SS133,176	
	D7	VG442500	DIODE.ZENR	MTZJ24B 24V	
*	D8	WG613900	LED	333GD/T5 GREEN	
	D22-23	VD631600	DIODE	1SS133,176	
	D24	VU264100	DIODE	1SR139,400	
	D25	VD631600	DIODE	1SS133,176	
⚠	D28-29	VG437700	DIODE.ZENR	MTZJ5.6B 5.6V	
⚠	F1	WC804600	FUSE	1.6A 125V	UCRTKL
⚠	F1	VV335000	FUSE	0.4A 250V	ABG
⚠	F2	VV335000	FUSE	0.4A 250V	RTKL
	G1	V5995800	PLATE.GND		
⚠	IC1	X3587A00	IC	STK404-070 60W	
	IC4-6	XB247A00	IC	uPC4570HA-A	
	PJ1	WC871000	JACK.PIN	1P MSP-241V-01NI	
	PN1	WB213200	PIN	L=70 WB21320	
	Q1	iC224030	TR	2SC2240 GR,BL	
	Q2	iA097030	TR	2SA970 GR,BL	
	Q5	WF612700	TR	2SC2240 GR	
	Q6	iA097040	TR	2SA970 GR	
	Q9	V6896700	TR	2SD2531	
	Q10	V6896500	TR	2SB1642	
	Q17-18	iC224030	TR	2SC2240 GR,BL	
	Q19	iC287820	TR	2SC2878 A,B	
	Q20	iC287820	TR	2SC2878 A,B	
	R1	HV756150	R.CAR.FP	1.5KΩ 1/4W	
	R5	HV756120	R.CAR.FP	1.2KΩ 1/4W	
	R28	V6022600	R.CEMENT	0.1Ω 3W	
	R39	VC760500	R.MTL.OXD	470Ω 2W	
⚠	R45-46	HV753100	R.CAR.FP	1Ω 1/4W	
	R47	VC751900	R.MTL.OXD	0.22Ω 2W	
	R48	HV754100	R.CAR.FP	10Ω 1/4W	
*	R66	WG727400	R.MTL.FLM	2.7KΩ 1/4W	
*	R67	WG731200	R.MTL.FLM	100KΩ 1/4W	
	R95	HV755100	R.CAR.FP	100Ω 1/4W	
⚠	R126	HV753100	R.CAR.FP	1Ω 1/4W	
⚠	RY1	V5966300	RELAY	DS24D2-0S(M)	
	ST1-3	WA789600	SCR.TERM	M3	
* ⚠	SW5	WG803400	SW.PUSH	PS4E-A-040-NP	
⚠	SW6	WC906700	SW.SLIDE	SDKPA40300	RTKL
	VR1	WC595500	VR	A 5KΩ	
		WD192100	CUSHION		

＊ New Parts

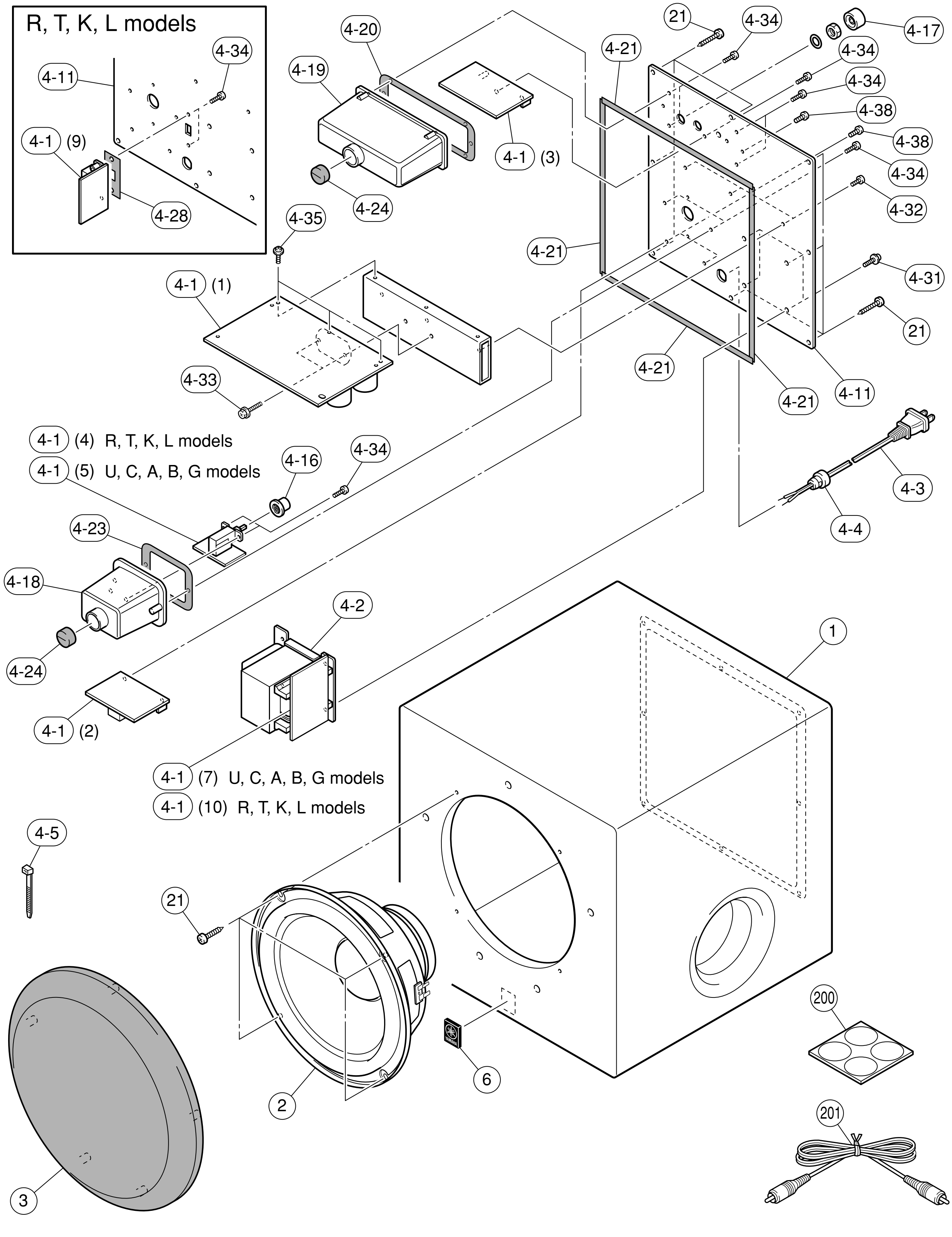
Parts List for Carbon Resistors

Value	**1/4W** Type Part No.	**1/6W** Type Part No.	Value	**1/4W** Type Part No.	**1/6W** Type Part No.
1.0 Ω	HJ35 3100	HF85 3100	10 kΩ	HF45 7100	HF45 7100
1.8 Ω	HJ35 3180	✻	11 kΩ	HF45 7110	HF45 7110
2.2 Ω	HJ35 3220	HF85 3220	12 kΩ	HJ35 7120	HF85 7120
3.3 Ω	HJ35 3330	HF85 3330	13 kΩ	HF45 7130	HF45 7130
4.7 Ω	HJ35 3470	HF85 3470	15 kΩ	HF45 7150	HF45 7150
5.6 Ω	HJ35 3560	HF85 3560	18 kΩ	HF45 7180	HF45 7180
10 Ω	HF45 4100	HF45 4100	22 kΩ	HF45 7220	HF45 7220
15 Ω	HJ35 4150	HF85 4150	24 kΩ	HF45 7240	HF45 7240
22 Ω	HF45 4220	HF45 4220	27 kΩ	HJ35 7270	HF85 7270
27 Ω	HJ35 4270	HF85 4270	30 kΩ	HF45 7300	HF45 7300
33 Ω	HF45 4330	HF45 4330	33 kΩ	HF45 7330	HF45 7330
39 Ω	HJ35 4470	HF85 4390	36 kΩ	HF45 7360	HF45 7360
47 Ω	HF45 4470	HF45 4470	39 kΩ	HF45 7390	HF45 7390
56 Ω	HF45 4560	HF45 4560	47 kΩ	HF45 7470	HF45 7470
68 Ω	HF45 4680	HF45 4680	51 kΩ	HF45 7510	HF45 7510
75 Ω	HF45 4750	HF45 4750	56 kΩ	HF45 7560	HF45 7560
82 Ω	HF45 4820	HF45 4820	62 kΩ	HF45 7620	HF45 7620
91 Ω	HF45 4910	HF45 4910	68 kΩ	HF45 7680	HF45 7680
100 Ω	HF45 5100	HF45 5100	82 kΩ	HF45 7820	HF45 7820
110 Ω	HJ35 5110	HF85 5110	91 kΩ	HF45 7910	HF45 7910
120 Ω	HF45 5120	HF45 5120	100 kΩ	HF45 8100	HF45 8100
150 Ω	HF45 5150	HF45 5150	110 kΩ	HF45 8110	HF45 8110
160 Ω	HJ35 5160	✻	120 kΩ	HF45 8120	HF45 8120
180 Ω	HF45 5180	HF45 5180	150 kΩ	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 kΩ	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 kΩ	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 kΩ	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 kΩ	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 kΩ	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 kΩ	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 kΩ	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 kΩ	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 kΩ	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 kΩ	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 MΩ	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 MΩ	HJ35 9120	✻
1.0 kΩ	HF45 6100	HF45 6100	1.5 MΩ	HJ35 9150	HF85 9150
1.2 kΩ	HF45 6120	HF45 6120	1.8 MΩ	HJ35 9180	HF85 9180
1.5 kΩ	HF45 6150	HF45 6150	2.2 MΩ	HJ35 9220	HF85 9220
1.8 kΩ	HF45 6180	HF45 6180	3.3 MΩ	HJ35 9330	HF85 9330
2.0 kΩ	HJ35 6200	HF85 6200	3.9 MΩ	HJ35 9390	✻
2.2 kΩ	HF45 6220	HF45 6220	4.7 MΩ	HJ35 9470	HF85 9470
2.4 kΩ	HJ35 6240	HF85 6240			
2.7 kΩ	HF45 6270	HF45 6270			
3.0 kΩ	HF45 6300	HF45 6300			
3.3 kΩ	HF45 6330	HF45 6330			
3.6 kΩ	HJ35 6360	HF85 6360			
3.9 kΩ	HF45 6390	HF45 6390			
4.7 kΩ	HF45 6470	HF45 6470			
5.1 kΩ	HF45 6510	HF45 6510			
5.6 kΩ	HF45 6560	HF45 6560			
6.8 kΩ	HF45 6680	HF45 6680			
8.2 kΩ	HF45 6820	HF45 6820			
9.1 kΩ	HF45 6910	HF45 6910			



✻ : Not available

■ EXPLODED VIEW



■ MECHANICAL PARTS

	Ref. No.	Part No.	Description		Remarks	Markets
*	1	WG568200	CABINET ASS'Y		CH	
*	1	WG568100	CABINET ASS'Y		BL	
*	1	WG568000	CABINET ASS'Y		SI	
	2	X5399A00	DRIVER WOOFER	20cm 6Ω	JA2025	
*	3	WG569300	FRONT GRILLE ASS'Y		CH,BL	
*	3	WG569200	FRONT GRILLE ASS'Y		SI	
*	4-1	WG587200	P.C.B. ASS'Y			UC
*	4-1	WG587300	P.C.B. ASS'Y			RTL
*	4-1	WG587400	P.C.B. ASS'Y			K
*	4-1	WG587500	P.C.B. ASS'Y			A
*	4-1	WG587600	P.C.B. ASS'Y			BG
* ⚠	4-2	X5313B00	POWER TRANSFORMER			UC
* ⚠	4-2	X5314B00	POWER TRANSFORMER			RTKL
* ⚠	4-2	X5315B00	POWER TRANSFORMER			A
* ⚠	4-2	X5316B00	POWER TRANSFORMER			BG
⚠	4-3	WC906100	POWER CABLE	2m		UC
⚠	4-3	WD042000	POWER CABLE	2m		R
⚠	4-3	WC906200	POWER CABLE	2m		T
⚠	4-3	WC906300	POWER CABLE	2m		K
⚠	4-3	WC906400	POWER CABLE	2m		A
⚠	4-3	WC906500	POWER CABLE	2m		B
⚠	4-3	WC906600	POWER CABLE	2m		GL
	4-4	CB072750	CORD STOPPER	SR-4N-4		
	4-5	WB408000	BINDING TIE	GT-100M		
*	4-11	WG570500	REAR PANEL			UC
*	4-11	WG570600	REAR PANEL			RTL
*	4-11	WG570700	REAR PANEL			A
*	4-11	WG570800	REAR PANEL			BG
	4-16	WC738200	POWER KNOB			
	4-17	WC757900	VOLUME KNOB			
	4-18	WC738400	COVER	P.SW		
	4-19	WC738100	COVER	TERMINAL		
	4-20	WC738800	PACKING	COVER TERMINAL		
	4-21	WC785200	PACKING	6x202 t=1		
	4-23	WC758000	PACKING	COVER P.SW		
	4-24	WC739000	BUSH			
	4-28	WC869800	GASKET			RTKL
*	4-31	WF765200	PW HEAD S-TIGHT SCREW	4x8-10 MFZN2B3		
	4-32	WE774400	BIND HEAD B-TIGHT SCREW	3x8 MFZN2B3		
	4-33	WE774600	SCREW IC	3x18 MFZN2W3		
	4-34	WF268000	BIND HEAD P-TIGHT SCREW	3x10 MFZN2B3		
	4-35	VT669300	PW HEAD B-TIGHT SCREW	3x8-8 MFC2		
	4-38	WE983600	BIND HEAD SCREW	3x8 MFZN2B3		
	6	WC788700	EMBLEM			
	21	WE955200	BIND HEAD TAPPING SCREW	4x20 MFZN2B3		
			ACCESSORIES			
	200	WC731500	NONSKID PAD	M32 t2 4pcs/set		
	201	WC947800	SUBWOOFER CABLE	1P 5m 1pc		

* New Parts

YST-SW012

YAMAHA